

**CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)**

Applicant(s):

Docket No.

02-4019

Serial No.

10/685,586

Filing Date

October 16, 2003

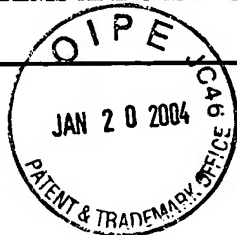
Examiner

Unassigned

Group Art Unit

Unassigned

Invention:

**SYSTEMS AND METHODS FOR SPEAKER CHANGE DETECTION**I hereby certify that this **INFORMATION DISCLOSURE STATEMENTS AND RELATED DOCUMENTS***(Identify type of correspondence)*

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on **January 16, 2004***(Date)***Christian R. Andersen***(Typed or Printed Name of Person Mailing Correspondence)**(Signature of Person Mailing Correspondence)***Note: Each paper must have its own certificate of mailing.**



Patent  
Attorney's Docket No. 02-4019

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
Daben Liu et al	)	Group Art Unit: Unassigned
Application No.: 10/685,586	)	Examiner: Unassigned
Filed: October 16, 2003	)	
For: SYSTEMS AND METHODS FOR	)	
SPEAKER CHANGE DETECTION	)	

**INFORMATION DISCLOSURE STATEMENT**  
**TRANSMITTAL LETTER**

M.S. Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☒ No additional fee for submission of the IDS is required.
- ☐ The fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A certification under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ Charge \$        to Deposit Account No. 07-2347 for the fee due.
- ☐ A check in the amount of \$    is enclosed for the fee due.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R.  
§§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to  
Deposit Account No. 07-2347.

Respectfully submitted,

By: Joel Wall/cw  
Joel Wall  
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Customer Number: 32127

Date: 1-16-2004



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Daben Liu et al	)	Group Art Unit: Unassigned
	)	
Application No.: 10/685,586	)	Examiner: Unassigned
	)	
Filed: October 16, 2003	)	
	)	
Title: SYSTEMS AND METHODS FOR	)	
SPEAKER CHANGE DETECTION	)	

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)**

M.S. Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant(s) bring to the attention of the Examiner the documents listed on the attached PTO 1449. This Information Disclosure Statement is being filed before the mailing date of a first Office Action in the above-referenced application. As such, no certification or fee is required. Copies of the listed documents are attached.

Applicant(s) respectfully request(s) that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

If any copending application(s) is/are cited on the attached PTO 1449, the Examiner's attention is directed to the foregoing application(s) in compliance with § 2001.06(b) of the Manual of Patent Examining Procedure. By identifying the copending application(s), the assignee and/or applicant of the application(s) do not waive confidentiality of the application(s). Accordingly, the U.S. Patent and Trademark Office is requested to maintain the confidentiality of the copending application(s) under 35 U.S.C. § 122.

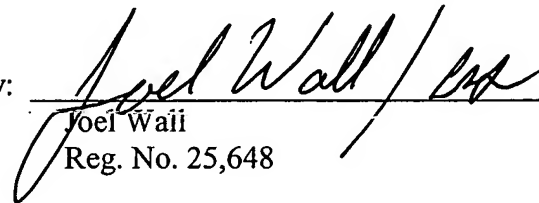
This submission does not represent that a search has been made and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant(s) determine(s) that the cited document(s) do not constitute "prior art" under United States law, Applicant(s) reserve(s) the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 07-2347.

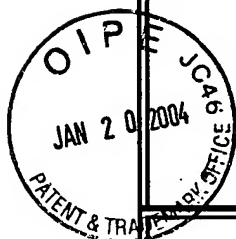
Respectfully submitted,

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Customer Number: 32127

Date: 1-16-2004



**INFORMATION  
DISCLOSURE  
CITATION**  
PTO-1449

ATTORNEY'S DKT No.  
02-4019

APPLICATION No.  
10/685,586

APPLICANT(S)  
Daben Liu et al.

FILING DATE  
October 16, 2003

GROUP  
Unassigned

**U.S. PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE

**FOREIGN PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No


**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	Amit Srivastava et al.: "Sentence Boundary Detection in Arabic Speech," <u>8<sup>th</sup> European Conference on Speech Communication and Technology</u> , September 1-4, 2003 in Geneva, Switzerland; 4 pages.
	Sreenivasa Sista et al.: "Unsupervised Topic Discovery Applied To Segmentation Of News Transcriptions," <u>8<sup>th</sup> European Conference on Speech Communication and Technology</u> , September 1-4, 2003 in Geneva. Switzerland; 4 pages.
	Daben Liu et al.: "Online Speaker Clustering," <u>ICASSP 2003</u> , Vol. 1, pages 572-575, 2003 Hong Kong.
	J. Billa et al.: "Audio Indexing Of Arabic Broadcast News," <u>ICASSP 2002</u> ; Orlando, FL; May 13-17, 2002; 4 pages.
	Scott Shepard et al.: "Oasis Translator's Aide," <u>Human Language Technology Conference</u> ; San Diego, California; 2002; 2 pages.
	Scott Shepard et al.: "Newsroom OnTAP - Real-time alerting from streaming audio," December-January 2001 HLT Paper; 2 pages.
	Heidi Christensen et al.: "Punctuation Annotation using Statistical Prosody Models," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; 6 pages.
	Ji-Hwan Kim et al.: "The Use Of Prosody In A Combined System For Punctuation Generation And Speech Recognition," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; 4 pages.
	Jing Huang et al.: "Maximum Entropy Model For Punctuation Annotation From Speech," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; pages 917-920.
	Yoshihiko Gotoh et al.: "Sentence Boundary Detection in Broadcast Speech Transcripts," <u>Proceedings of the International Speech Communication Association Workshop: Automatic Speech Recognition: Challenges for the New Millennium</u> , Paris, September 2000; 8 pages.
	John Makhoul et al.: "Speech and Language Technologies for Audio Indexing and Retrieval," <u>Proceedings of the IEEE</u> , Vol. 88, No. 8, August 2000; pages 1338-1353.
	Francis Kubala et al.: "Integrated Technologies For Indexing Spoken Language," <u>Communications of the ACM</u> , Vol. 43, No. 2, February 2000; pages 48-56.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

<b>INFORMATION DISCLOSURE CITATION</b> PTO-1449				ATTORNEY'S DKT No. 02-4019		APPLICATION No. 10/685,586	
				APPLICANT(S) Daben Liu et al.			
				FILING DATE October 16, 2003		GROUP Unassigned	

U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Sean Colbath et al.: "Spoken Documents: Creating Searchable Archives from Continuous Audio," <u>Proceedings of the 33<sup>rd</sup> Hawaii International Conference on System Sciences-2000</u> ; pages 1-9.
	Francis Kubala et al.: "Situation Awareness Contexts for Smart Environments," <u>Inter-Agency Workshop on Research Issues for Smart Environments</u> ; Atlanta, GA; 2000; 3 pages.
	Daben Liu et al.: "Fast Speaker Change Detection For Broadcast News Transcription And Indexing," <u>The Proceedings of Eurospeech 1999</u> ; Budapest, Hungary; 4 pages.
	Daniel M. Bikel et al.: "An Algorithm that Learns What's in a Name," <u>Machine Learning</u> , 1999; pages 1-20.
	Richard Schwartz et al.: "Accurate Near-Real-Time Recognition of Broadcast News using Multiple-Pass Search Techniques," <u>1999 Workshop on Automatic Speech Recognition and Understanding</u> , December 12-15, 1999; Keystone, Colorado; 6 pages.
	Francis Kubala et al.: "Smart Information Spaces: Managing Personal and Collaborative Histories," <u>Proceedings of the 1998 DARPA/NIST Smart Spaces Workshop</u> , July 30-31, 1998; 6 pages.
	Daben Liu et al.: "Improvements in Spontaneous Speech Recognition," <u>Proceedings of the DARPA Broadcast News Transcription and Understanding Workshop</u> ; February 8-11, 1998 in Lansdowne, Virginia; 5 pages.
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	Hubert Jin et al.: "Automatic Speaker Clustering," <u>ICFEM</u> , Chantilly, Virginia; February 1997; 4 pages.
	Sean Colbath et al.: "OnTAP: Mixed-media Multi-lingual Language Processing," <u>Human Language Technology Conference</u> , San Diego, CA; 2002; 2 pages.
	Andreas Stolcke et al.: "Automatic Linguistic Segmentation Of Conversational Speech," <u>Proceedings of the International Conference on Spoken Language Processing</u> , Vol. 2, Philadelphia 1996; pages 1005-1008.
	Scott S. Chen et al.: "Speaker, Environment and Channel Change Detection and Clustering via the Bayesian Information Criterion," in <u>DARPA Speech Recognition Workshop</u> , 1998, 6 pages.
	Marti A. Hearst: "Multi-Paragraph Segmentation of Expository Text," in <u>Proceedings of the 2<sup>nd</sup> Annual Meeting of the Association for Computational Linguistics</u> , New Mexico State University, Las Cruces, NM, 1994, pages 1-8.

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